Translation

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PATENT COOPERATION TREATY

PCT/EP2003/009500

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference K 59 885/7ch	**FOR FURTHER ACTION**	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)
International application No. PCT/EP2003/009500	International filing date (*day/month/year*) 27 August 2003 (27.08.2003)	Priority date (*day/month/year*) 28 August 2002 (28.08.2002)
International Patent Classification (IPC) or national classification and IPC G06K 19/077		
Applicant GIESECKE & DEVRIENT GMBH		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 5 sheets, including this cover sheet.

   ☐ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

   These annexes consist of a total of _____ sheets.

3. This report contains indications relating to the following items:

   - I ☒ Basis of the report
   - II ☐ Priority
   - III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
   - IV ☐ Lack of unity of invention
   - V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
   - VI ☐ Certain documents cited
   - VII ☐ Certain defects in the international application
   - VIII ☐ Certain observations on the international application

Date of submission of the demand 12 March 2004 (12.03.2004)	Date of completion of this report 26 August 2004 (26.08.2004)
Name and mailing address of the IPEA/EP Facsimile No.	Authorized officer Telephone No.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.
PCT/EP2003/009500

I. Basis of the report

1. With regard to the **elements** of the international application:*

☐ the international application as originally filed

☒ the description:

pages 1-9, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____

☒ the claims:

pages 1-10, as originally filed
pages _____, as amended (together with any statement under Article 19
pages _____, filed with the demand
pages _____, filed with the letter of _____

☒ the drawings:

pages 1-4, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____

☐ the sequence listing part of the description:

pages _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.
These elements were available or furnished to this Authority in the following language _____ which is:

☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
☐ the language of publication of the international application (under Rule 48.3(b)).
☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

☐ contained in the international application in written form.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority in written form.
☐ furnished subsequently to this Authority in computer readable form.
☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

☐ the description, pages _____
☐ the claims, Nos. _____
☐ the drawings, sheets/fig _____

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* *Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).*

** *Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.*

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.
PCT/EP 03/09500

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1-10	YES
	Claims		NO
Inventive step (IS)	Claims	1-5	YES
	Claims	6-10	NO
Industrial applicability (IA)	Claims	1-10	YES
	Claims		NO

2. Citations and explanations

1. Reference is made to the following documents:

D1: US-A-4 876 441 (BITO HIROYASU et al.), 24 October 1989 (1989-10-24)

D2: DE 199 54 841 A (SIEMENS AG), 17 May 2001 (2001-05-17)

D3: DE 199 63 165 C (GIESECKE & DEVRIENT GMBH), 8 March 2001 (2001-03-08)

D4: US-A-4 795 895 (HARA KAZUYA et al.), 3 January 1989 (1989-01-03)

D5: US 2002/020491 A1 (LARSON GARY R et al.), 21 February 2002 (2002-02-21)

2. The cited prior art contains nothing to suggest a method for fitting a display in a data carrier card, wherein a reflective layer is first applied to a recess in the card and a display is then mounted which operates in conjunction with the reflective layer as a reflective display. **Method claims 1 to 5** therefore meet the requirements of novelty and inventive step (PCT Article 33(2) and (3)). The invention is clearly industrially applicable.

3. Independent **device claim 6** relates to a portable data carrier with a display mounted in a recess. The specification that a reflective layer is applied to the base of the recess covers not only cases in which the reflective layer is created separately from the display but also cases involving the

fitting of a display module that has a reflective layer applied to its underside. Document D1 describes the fitting of a display in a data carrier card (credit card with computer; see figures 9 and 10 and the description). Since LCD displays in this type of application are normally always reflective, a person skilled in the art would assume that the display 160 in figures 9 and 10 had a reflective layer on its underside, or would at least consider using such a display. Thus the act of bonding such a display in place automatically applies a reflective layer to the base of the recess (with an intermediate layer). Moreover, figure 10 in D1 shows contact areas in the recess formed by conductors (161), which contact the contact areas on the display. The contact areas on the display face the base of the recess (see figure 10 in conjunction with figure 9). A person skilled in the art working from D1 would thus arrive at the subject matter of **claim 6** without having to exercise any inventive skill. The same applies to independent **method claim 10**, in which the reflective layer is specifically stated to be already on the display. Attention is also drawn to document D2, which also describes the fitting of an LCD display with downward-facing contact areas (see figure 1).

Dependent claims 7 to 9 do not add any features that might establish an inventive step. The multiple-level design of the display and recess are known from D1 and D2, and the filling of gaps is known from document D3 (see the top of column 6). The use of anisotropically conductive adhesives for contacting electronic components is also known from the prior art (see the abstracts of documents D4 and D5).